

Abstract Submitted
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Using Accumulated Charge to Monitor Nanoparticle Deposition Rates Via Electrospray Ionization JOEL THERRIEN, AMIR DINDAR, DAVID SMITH, U. Massachusetts-Lowell, ECE Dept. — Electro-Spray Ionization (ESI) is a handy technique for depositing nanoparticles onto a substrate directly from a liquid suspension. ESI atomizes the suspension via high electric fields. The solvent in which the particles were suspended rapidly evaporates resulting in a stream of charged particles. This technique can be used to deposit a sub-monolayer dispersion of particles on any conducting substrate. AFM studies have been performed on ESI deposited samples to determine the correlation between the net charge deposited on the substrate via the deposition and the surface density of particles. This correlation may be used as a means of rate monitoring to assure higher reliability in achieving desired particle densities.

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